

**Global Companies, LLC  
Cumberland County  
South Portland, Maine  
A-432-71-E-R**

**Departmental  
Findings of Fact and Order  
Air Emission License**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Global Companies, LLC (Global) of South Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their bulk petroleum storage and distribution facility.

**B. Emission Equipment**

Global is licensed to operate the following equipment:

**Fuel Burning Equipment**

<b><u>Equipment</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Maximum Firing Rate (gal/hr)</u></b>	<b><u>Fuel Type, % sulfur</u></b>	<b><u>Stack #</u></b>
Boiler #1	16.8	112.0	#6 fuel oil, 2.0%	1
Boiler #2	16.8	112.0	#6 fuel oil, 2.0%	2
Generator #1	0.73	5.2	#2 fuel oil or diesel, 0.3%	3

**Distillate / Residual Storage**

<b><u>Tank</u></b>	<b><u>Capacity (MM Gallons)</u></b>	<b><u>Vintage</u></b>	<b><u>Roof Type</u></b>
#1	2.3	1985	Fixed
#2	2.3	1985	Fixed
#3	2.3	1985	Fixed
#4	1.5	1918	Fixed
#5	2.3	1924	Fixed
#6	2.3	1924	Fixed
#7	2.3	1924	Fixed
#8	1.55	1925	external floating
#9	3.36	1976	Fixed
#14	0.41	1936	external floating
#15	0.41	1936	external floating
#16*	6.8	2002	Fixed

\*This equipment was not previously licensed.

**Process Equipment**

<b><u>Equipment</u></b>	<b><u>Production Rate</u></b>	<b><u>Pollution Control Equipment</u></b>
Loading Rack	2,400 gal/min	Vapor Control Unit

C. Application Classification

This license has been determined to be a renewal and has been processed as such.

**II. BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

#### **B. Boilers**

Global is a bulk petroleum storage facility which also operates two #6 fuel oil fired boilers. The Department has approved a request by Global to allow the flexibility to fire #6 fuel oil with varying sulfur levels provided they do not exceed previously permitted levels of SO<sub>2</sub>. Therefore, Global shall not exceed a total sulfur dioxide emission limit of 45.1 tons per year, based on a 12-month rolling total. This is the equivalent of the previously permitted 600,000 gallons of #6 fuel oil with a sulfur content of 1.0%. However, at no time shall the #6 fuel oil fired in the boilers exceed a sulfur limit of 2.0% by weight. Global shall keep records of the amount of all fuel fired and corresponding sulfur content as well as monthly records showing the calculated SO<sub>2</sub> emissions on a monthly and 12-month rolling total basis.

Boilers #1 and #2 were installed in 1961, and are therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BPT analysis for Boilers #1 and #2 (16.8 MMBtu/hr each) is the following:

1. Global shall not exceed a total sulfur dioxide emission limit from Boilers #1 and #2 of 45.1 tons per year, based on a 12-month rolling total.
2. The sulfur content of the #6 fuel oil fired in Boilers #1 and #2 shall not exceed 2.0% by weight.
3. Global shall keep records of the amount of all fuel fired and corresponding sulfur content as well as monthly records showing the calculated SO<sub>2</sub> emissions on a monthly and 12-month rolling total basis.
4. Chapter 103 regulates PM emission limits. The PM<sub>10</sub> limits are derived from the PM limits.
5. NO<sub>x</sub> emission limits are based on data from similar #6 fired boilers of this size and age.
6. CO and VOC emission limits are based upon AP-42 data dated 9/98.
7. Annual emission limits for PM, NO<sub>x</sub>, CO and VOC for the boilers are based on the firing of 1,200,000 gallons of #6 fuel oil.
8. Visible emissions from the boilers shall not exceed 30% opacity on a 6 minute block average, except for no more than 2 six minute block averages in a continuous 3 hour period.

**C. Generator**

Global operates a back up emergency diesel generator. A summary of the BPT analysis for Generator #1 (75 kW) is the following:

1. Generator #1 shall fire only #2 fuel oil or diesel fuel with a maximum sulfur content not to exceed 0.3% by weight.
2. The generator shall be limited to 500 hr/yr of operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all generator operating hours.
3. Chapter 106 regulates fuel sulfur content, however the use of 0.3% sulfur by weight fuel is more stringent and shall be used.
4. The PM and PM<sub>10</sub> limits are derived from Chapter 103.
5. NO<sub>x</sub>, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from the generator shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six minute block averages in a continuous 3 hour period.

**D. Distillate and Residual Storage Tanks and Loading Racks**

Global currently operates nine tanks with fixed roofs and three tanks with external floating roofs. Each of these tanks varies in size and throughput depending on the demand for petroleum products throughout the year.

Global does not currently own or operate a vapor control unit (VCU) on its loading rack since this technology is not required for the loading of distillate. However, Global wishes to maintain the flexibility to load trucks whose most recent previous load was gasoline. Global has proposed installation of a John Zink vapor combustion unit (VCU). The VCU will control emissions to 10 milligrams of VOC per liter of product loaded utilizing propane as a pilot. Global shall install and operate the VCU by April 1, 2003

BPT for the distillate tanks and loading rack shall be the following:

1. Global shall perform routine inspections of all distillate storage tanks at a minimum of once every month around the perimeter of the tank and roof.
2. Global shall keep an inspection log documenting any detected leaks, holes, tears, or other opening and the corrective action taken.
3. Global shall keep records of monthly throughput specifying quantity and types of petroleum liquids in each tank and the period of storage.
4. No later than April 1, 2003, Global shall install and operate a VCU to control the emissions from the loading rack.

E. Annual Emission Restrictions

Global shall be restricted to the following annual emissions, based on a 12 month rolling total:

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	18.0
PM <sub>10</sub>	18.0
SO <sub>2</sub>	45.1
NO <sub>x</sub>	46.3
CO	4.3
VOC	20.0

Annual VOC emissions include un-combusted vapors leaving the VCU, VOC from fuel combustion in the boilers, and VOC from the distillate tanks and distillate loading.

### III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	100
CO	250

Based on the above total facility emissions, Global is below the emissions level required for modeling and monitoring.

**ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-432-71-E-R subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.

- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
    - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
    - b. pursuant to any other requirement of this license to perform stack testing.
  - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
  - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances

- representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
- (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (16) **Boilers #1 and #2**
- A. Global shall not exceed a total sulfur dioxide emission limit from Boilers #1 and #2 of 45.1 tons per year, based on a 12-month rolling total.
  - B. The sulfur content of the #6 fuel oil fired in Boilers #1 and #2 shall not exceed 2.0% by weight.



- C. Global shall keep records of the amount of all #6 fuel fired and corresponding sulfur content as well as monthly records showing the calculated SO<sub>2</sub> emissions on a monthly and 12-month rolling total basis.
- D. Emissions shall not exceed the following:

Equipment		PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boiler #1	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	3.36	3.36	33.60	8.40	0.56	0.03
Boiler #2	lb/MMBtu	0.20	-	-	-	-	-
	lb/hr	3.36	3.36	33.60	8.40	0.56	0.03

- E. Visible emissions from Boilers #1 and #2 shall not exceed 30% opacity on a 6-minute block average, except for no more than 2 six minute block averages in a continuous 3 hour period.

(17) **Generator**

- A. Global shall limit Generator #1 to 500 hr/yr of operation (based on a 12 month rolling total). An hour meter shall be maintained and operated on Generator #1.
- B. A log documenting the dates, times, and reason of operation for Generator #1 shall be kept.
- C. Generator #1 shall fire #2 fuel oil or diesel with a sulfur limit not to exceed 0.3% by weight. Fuel records, including percent sulfur, shall be maintained.
- D. Emissions shall not exceed the following:

Equipment		PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Generator #1	lb/MMBtu	0.12	-	-	-	-	-
	lb/hr	0.09	0.09	0.22	3.22	0.69	0.26

- E. Visible emissions from Generator #1 shall not exceed 30% opacity on a 6 minute block average, except for no more than (2) six minute block averages in a continuous 3 hour period.

(18) **Distillate / Residual Storage**

- A. Global shall store only distillate or residual petroleum products in their storage tanks.

- B. Global shall conduct routine inspections of all distillate / residual storage tanks at a minimum of once every month around the perimeter of the tank and roof.
  - C. The following records shall be maintained at the source and available for inspection by the Department:
    - 1. Inspection log documenting any detected leaks, holes, tears, or other opening and the corrective action taken, and
    - 2. Monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage.
  - D. After January 1, 2003, Global shall not load any truck carrying gasoline or which has carried gasoline as the most recent previous load unless a vapor collection and control system is utilized during the entire loading process
  - E. By April 1, 2003, Global shall install and operate a VCU to control the emissions from the loading rack.
  - F. VOC emissions from the VCU shall not exceed 10 milligrams of VOC per liter of product transferred.
  - G. Global shall conduct a VOC compliance test for the VCU prior to June 15, 2003. A report containing test results shall be submitted to the Department within 30 days of testing according to the requirements of the Department's stack test protocol.
- (19) Global shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605-C).
- (20) **Annual Emission Statement**  
In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:
- 1) A computer program and accompanying instructions supplied by the Department;  
or
  - 2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1.

- (21) Global shall pay the annual air emission license fee within 30 days of January 31<sup>st</sup> of each year. Pursuant to 38 M.R.S.A. Section 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 M.R.S.A. Section 341-D, Subsection 3.
- (22) The term of this Order shall be for five (5) years from the signature below.

DONE AND DATED IN AUGUSTA, MAINE THIS                      DAY OF                      2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/13/00

Date of application acceptance: 3/28/00

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by Lynn Ross, Bureau of Air Quality.